

**PATENT APPLICATION**

**IN THE APPLICATION**

**OF**

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**FOR A**

**PORTABLE SPORTS EQUIPMENT HOLDER**

**BACKGROUND OF THE INVENTION**

**PRIORITY**

This application claims benefit of US Provisional Patent Application serial number 60/495,408, filed August 16, 2003.

**1. FIELD OF THE INVENTION**

The present invention relates generally to supports and racks, and more specifically to a portable equipment holder for sports equipment.

## **2. DESCRIPTION OF RELATED ART**

Hunters in tree stands or in blinds cannot hold all their equipment in their hands. Some equipment must be attached to the tree or placed on the ground. Some equipment, such as a camera, rattling antlers, game calls and range finders, might be held in the hands, but that would make it difficult to operate a firearm or a bow. Assuming that the hunter does not need to hold additional equipment, holding only a firearm or a bow becomes progressively more difficult as the day goes on, due to fatigue and cold weather. Thus, a convenient and safe way to hold a firearm or a bow at the ready is desirable.

Many devices have been developed to hold sports equipment, including firearms and bows, but they have many shortcomings. Other firearm or bow holders are bulky and heavy, and don't place the firearm or bow in a position that makes it easy to shoot quickly. Some of these devices interfere with the limited foot space in a tree stand. A hunter should not move excessively while in a tree stand. Excessive movement makes it more likely that the game animals will discover the hunter's presence and avoid the area. In addition, excessive movement may increase the likelihood of injury due to a fall from a tree stand.

Like hunters, fishermen place similar demands upon their equipment. While fishing, it is not practical to hold the fishing rod or pole in the hands the entire time. A fisherman must perform many tasks, from maintaining another fishing rod, to helping a companion with their equipment or eating lunch. Thus, a convenient and safe way to hold a fishing rod ready for immediate action is desirable.

dipped in a rubber, vinyl, or another non-slip, sound-deadening coating. The coating protects the archers bow from damage, prevents the bow from slipping out of the fork and reduces noise when inserting the bow into the bow fork and removing it in preparation for a shot, so as not to scare the game animal.

One of the advantages of the sports equipment holder is that it is easily portable. Most bow or firearm holders are almost permanently attached to the tree or the tree stand. This requires a hunter with multiple stands to buy multiple holders. A hunter would need to purchase only one sports equipment holder for multiple tree stands or other locations since it can be easily attached and detached as a hunter moves between stands or blinds. It is portable enough to carry in a pocket or fanny pack.

Another advantage to the sports equipment holder is that the hunter can place it almost anywhere on the perimeter of the tree stand to suit his needs depending on how he positions the stand and the direction he most likely intends to shoot. Most of all, unlike other holders that screw into the tree or hang from the side, the sports equipment holder can hold the bow or firearm in front of the hunter, or on the same side of the stand he intends to shoot from, in an upright 'ready to shoot' position. This is especially beneficial since it minimizes the movement required to retrieve the bow or firearm and therefore greatly reduces the risk of scaring the game animal.

Yet another advantage to the sports equipment holder is that the same hunter can use it for holding a fishing rod, reducing the amount of equipment the hunter must purchase to participate in multiple sports activities.

Accordingly, it is a principal object of the invention to provide a sports equipment holder that is easily portable.

It is another object of the invention to teach a sports equipment holder that is easily attached to any suitable tree limb or rail without special tools.

It is a further object of the invention to provide a sports equipment holder that securely supports a bow or firearm within easy reach of the hunter.

It is another object of the invention to teach a sports equipment holder that securely supports a fishing rod.

It is an object of the invention to provide improved elements and arrangements thereof in an apparatus for the purposes described which is inexpensive, dependable and fully effective in accomplishing its intended purposes.

These and other objects of the present invention will become readily apparent upon further review of the following specification and drawings.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is an environmental perspective view of the sports equipment holder supporting a bow, according to the present invention.

Fig. 2 is a perspective view of the sports equipment holder supporting a firearm, according to the present invention.

Fig. 3 is a perspective view of the sports equipment holder supporting a fishing rod, according to the present invention.

Fig. 4 is a perspective view of the sports equipment holder supporting a bow, according to the present invention.

## **DETAILED DESCRIPTION OF THE DRAWINGS**

The sports equipment holder has a rod with a clamp at a first end and an equipment support at a second end. The equipment support includes a bow fork, a rod hook or a firearm hook. Fig. 1 is an environmental perspective view of the sports equipment holder supporting a bow, according to the present invention. The device has a support rod 10 with a first end and a second end. A clamp 12 is attached to the first end of the support rod 10 and an equipment holder 14 is removably attached to the second end of the support rod 10. The clamp 12 has jaws that open wide enough to permit the device to be temporarily attached to a suitable support, such as a rail or a tree branch. The clamp 12 shown is a type that holds tighter to the supporting structure when twisted in one direction, and becomes looser when twisted in the opposite direction. To maintain the proper attachment force, the user may need to change the orientation of the clamp 12 when changing the attachment of the equipment holder 14. Other clamp types may be used. In Figure 1, the sports equipment holder is attached to a tree stand 16 as used by a hunter 18. In the preferred embodiment, the equipment holder 14 has a threaded member that extends through an aperture in the rod 10. The threaded member permits the equipment holder 14 to attach to the rod 10 with a thumbscrew 20. One or more lock washers may be used on the threaded member between the rod 10 and the thumbscrew 20 or the equipment holder 14 to adjust the equipment holder's resistance to rotation. The sports equipment holder permits a sportsman to have a bow or a firearm in a position to be

ready for a quick shot without the need for the sportsman to hold the bow or firearm continuously. Here, a bow 24 is shown supported in an upright position, canted slightly forward.

In Figure 1 the equipment holder 14 is a bow fork 22. The bow fork 22 shown is oriented with the tines approximately level. A lower bow limb 25 is slipped into the bow fork 22, between the tines. The weight of the bow 24 rotates the bow 24 forward to frictionally engage the bow fork 22. The position of the bow fork 22 may be adjusted to orient the bow 24 into the optimal position for each sportsman. If a suitable support is available, when the device is used to support a bow 24, the sporting equipment holder may be attached overhead to suspend the bow 24 from an upper bow limb 27.

In one embodiment, the bow fork 22 is coated with a non-slip material. In another embodiment, the bow fork 22 is coated with a sound-deadening material. A rubber or soft plastic substance may serve both the non-slip and the sound-deadening roles, but many other materials may be used.

Fig. 2 is a perspective view of the sports equipment holder supporting a firearm, according to the present invention. In this embodiment, the equipment holder 14 is a firearm hook 28. The firearm hook 28 is oriented to accept a buttstock 30 of a firearm. The firearm hook 28 has three hooks to define an area into which the buttstock 30 is inserted. The space within the hooks generally defines a top, a bottom, and a butt of a buttstock 30. A first hook 32 supports the bottom of the buttstock 30 about midway between the butt and a wrist of the buttstock 30. A second hook 34 supports a top of the buttstock 30 adjacent to the butt of the buttstock 30. A third hook 36 supports below the buttstock 30. The planes of the first hook 32 and the second hook 34 are generally parallel to each other and perpendicular to a main shaft 38, which connects the three

hooks together. The third hook 36 is angled away slightly from the first hook 32, the second hook 34 and the main shaft 38.

When the sports equipment holder is used properly, the weight of the firearm and the orientation of the firearm hook 28 causes the firearm to lean forward slightly. In this manner the firearm is retained within the firearm hook 28. The firearm hook 28 may be adjusted to orient the firearm into the optimal position for each sportsman. In one embodiment, the firearm hook 28 is coated with a non-slip material. In another embodiment, the firearm hook 28 is coated with a sound-deadening material. A rubber or soft plastic substance may serve both the non-slip and the sound-deadening roles, but many other materials may be used.

In another embodiment, the thumbscrew 20 may be replaced with a bow fork 22 having a threaded portion identical to the thumbscrew 20. This embodiment keeps all of the parts for the sports equipment holder together, minimizing the risk of loss.

Fig. 3 is a perspective view of the sports equipment holder supporting a fishing rod 40, according to the present invention. In this embodiment, the equipment holder is a fishing rod hook 42. The fishing rod hook 42 is oriented to accept a fishing rod 40. The fishing rod hook 42 is nearly identical to the firearm hook 28 in several ways. The fishing rod hook 42 has a main shaft 38, a first hook 32 and a second hook 34 to define an area into which the fishing rod 40 is inserted. The space within the hooks 32, 34 generally defines a handle of a fishing rod 40. A first hook 32 supports the bottom of the fishing rod 40 near the reel 44. A second hook 34 supports a top of the fishing rod 42 between the reel and the butt end of the fishing rod 40. In one embodiment, a third hook 36 is included to enable the use of the fishing rod hook 42 as a firearm hook 28. In another embodiment, no third hook 36 is included with the fishing rod hook 42. The planes of the first hook

32 and the second hook 34 are generally parallel to each other and perpendicular to the main shaft 38, which connects the hooks 32, 34, 36 together. When provided, the third hook 36 is angled away slightly from the first hook 32, the second hook 34 and the main shaft 38. The third hook 36 does not interfere with the use of the firearm hook 28 as a fishing rod hook 42.

The weight and subsequent torque of the fishing rod 40 and the orientation of the fishing rod hook 42 causes the fishing rod 42 to be securely retained within the fishing rod hook 42. The fishing rod hook 42 may be adjusted to orient the fishing rod 40 into the optimal position for each sportsman. In one embodiment, the fishing rod hook 42 is coated with a non-slip material. In another embodiment, the fishing rod hook 42 is coated with a sound-deadening material. A rubber or soft plastic substance may serve both the non-slip and the sound-deadening roles, but many other materials may be used.

Fig. 4 is a perspective view of the sports equipment holder supporting a bow 24, according to the present invention. In this example, the bow fork 22 is oriented so that the tines are approximately level. A lower bow limb 25 is slipped into the bow fork 22, between the tines. The weight of the bow 24 rotates the bow 24 forward to frictionally engage the bow fork 22. The bow fork 22 may be adjusted to orient the bow 24 into the optimal position for each sportsman. The appropriate angle of the bow fork 22 also depends upon the design of the hunter's bow and the angle of the bow's limbs. The bow fork 22 is adjustable to accommodate any bow design. The bow fork 22 may be attached to either side of the rod 10, to accommodate left- or right-handed sportsmen or to suit individual preferences. To maintain the proper tension, the user may need to change the orientation of the clamp 12 when changing the attachment of the bow fork 22 or any of the equipment holders 14. In one embodiment, the bow fork 22 is coated with a non-slip material.



In another embodiment, the bow fork 22 is coated with a sound-deadening material. A rubber or soft plastic substance may serve both the non-slip and the sound-deadening roles, but many other materials may be used.

The clamp 12 is shown attached to a section of square tubing. The jaws of the clamp are suitable for securely attaching the sporting equipment holder to many materials, including multi-sided or angular tubing or lumber found in tree stands, blinds, trees, or other places.